

What is claimed is:

1. A composition comprising

5 (i) a minor amount of a binder and

(ii) a major amount of spherical inorganic matrix particles.

2. The composition of claim 1 comprising the inorganic particles and the binder in a weight ratio of about 100 : 10 to about 100 : 0.1.

10 3. The composition of claim 1 comprising the inorganic matrix particles and the binder in a weight ratio of about 100 : 8 to about 100 : 1.0.

4. The composition of claim 1 comprising the inorganic matrix particles and the binder in a weight ratio of about 100 : 8 to about 100 : 3.5.

15 5. The composition of claim 1 wherein the binder is selected from the group consisting of organic polymers and alkali silicates.

6. The composition of claim 5 wherein the organic polymer binder is

20 selected from the group consisting of thermoplastic polymers.

7. The composition of claim 5 wherein the organic polymer binder is selected from the group consisting of cured polymer.

25 8. The composition of claim 5 wherein the alkali silicate is selected from the group consisting of sodium-water glasses, potassium-water glasses and mixtures thereof.

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9. The composition of claim 6 wherein the thermoplastic organic binder polymer is selected from the group consisting of polyether-ether-ketones (PEEK), polyvinylchloride (PVC), polypropylene (PP), polyethylene (PE), acrylnitrile-butadiene-styrene-copolymers (ABS), polycarbonates (PC), poly-  
5 methylmethacrylate (PMMA), polyvinylidenfluoride (PVDF) and thermoplastic polyolefins (TPO).

10. The composition of claim 7 wherein the cured polymer is selected from the group consisting of epoxy resins, polyurethane (PU) resins, alkyd resins, unsaturated polyester (UP) resins, melamine resins, vinyl ester resins, acrylate resins and phenolic resins.

11. The composition of claim 1 wherein the inorganic spherical matrix particles are made of a material selected from the group consisting of 15 aluminum, copper, iron, steel, titanium, platinum, manganese, zinc, bronze and other metal alloys, coal, glass, ceramic, quartz, silica, silicon carbide, tungsten carbide, boron carbide, metakaolin, calcinated clay, chinese clay, calcium carbonate, barium sulfate, aluminium oxide, and magnesium oxide.

20 12. The composition of claim 1 wherein the spherical inorganic matrix particles have a mean particle diameter of from about 5 to about 80  $\mu\text{m}$ .

13. The composition of claim 1 wherein the spherical inorganic matrix particles have a mean particle diameter of from about 10 to less than about 50  $\mu\text{m}$ .

14 The composition of claim 1 wherein the spherical inorganic matrix particles have a mean particle diameter of from about 25 to about 40  $\mu\text{m}$ .

15. The composition of claim 1 wherein at least about 80 wt-% of the spherical inorganic matrix particles have a particle size which does not deviate more than about 15 % from the average particle size.

5 16. The composition of claim 1 wherein at least about 85 wt-% of the spherical inorganic matrix particles have a particle size which does not deviate more than about 15 % from the average particle size.

17. The composition of claim 1 wherein at least about 98 wt-% of the  
10 spherical inorganic matrix particles have a particle size which does not deviate  
more than about 15 % from the average particle size.

18. The composition of claim 1 further comprising a chemical foaming agent.

19. The composition of claim 18 wherein the chemical foaming agent is selected from the group consisting of  $\text{NH}_4\text{HCO}_3$  and  $\text{Ca}(\text{H}_2\text{PO}_4)_2$ .

20. The composition of claim 18 wherein the chemical foaming agent is present in an amount of from about 0.1 to about 2 % by weight, based on the total amount of the composition.

21. The composition of claim 18 wherein the chemical foaming agent is present in an amount of from about 0.1 to about 1 % by weight, based on the  
25 total amount of the composition.

22. A porous shaped article comprising

(i) a minor amount of a binder and